## AMENDED CLAIM SET

- 1. (currently amended) An engine control system, comprising:
- a NOx catalyst containing ammonia as a reducing agent, provided in an exhaust system of an internal combustion engine, and selectively reducing NOx from exhaust gases;
- a reducing agent supply providing the reducing agent to the exhaust system and positioned upstream of the NOx catalyst;
- a NOx sensor detecting an amount of NOx in <a href="the-exhaust gases">the-exhaust gases</a> emitted by the internal combustion engine;
- a fuel injection system injecting fuel to the internal combustion engine in one of a main injection mode performing a main injection and or—a pilot-and-main injection mode performing a pilot injection and the main injection, the pilot injection proceeding the main injection; and
- a control unit activating the fuel injection system in the pilot-and-main injection mode to increase a NO<sub>2</sub>/NOx ratio in the exhaust gases when a NOx purifying efficiency  $(\eta)$  determined on the basis of data emitted NOx—is equal to or below a preset NOx purifying efficiency  $(\eta L)$ .
- 2. (currently amended) The engine control system according to claim 1, further comprising: including

\_\_\_a catalyst temperature sensor detecting a temperature of the NOx catalyst,

wherein the control unit activates the fuel injection system in the pilot-and-main injection mode in order to increase the  $\underline{\text{NO}_2/\text{NOx}}$  ratio in the exhaust gases when NOx purifying efficiency is equal to or below the preset purifying efficiency and when the temperature detected by the catalyst temperature sensor is below a catalyst activating temperature.